

CLAIM AMENDMENTS

List of Claims

1. (Original) A storage area network, comprising:
at least one server;
a plurality of storage devices; and
a storage allocator, connected between said at least one server and said plurality of storage devices, said storage allocator including
a read/write storage request parser that receives from said at least one server a read/write storage request ~~from said at least one server, wherein said read/write storage request parser~~ and extracts therefrom a host id parameter, a target LUN parameter and a target host bus adapter (HBA) parameter ~~at least one storage request parameter from said received read/write storage request,~~ and
a logical unit ~~mapper~~-(LUN) mapper that receives ~~said at least one storage request parameter from said read/write storage request parser~~ the host id parameter, target LUN parameter and target HBA parameter and maps ~~said at least one storage request parameter~~ based thereon to at least one physical LUN, wherein said at least one physical LUN represents at least one storage location within said plurality of storage devices.
2. (Original) The network of claim 1, wherein said LUN mapper comprises at least one LUN map.
3. (Cancel)
4. (Original) The network of claim ~~3~~2, wherein said LUN mapper uses said host id parameter to select one of said at least one LUN map corresponding to said host id parameter.

5. (Original) The network of claim 4, wherein said LUN mapper applies said target LUN parameter and said target HBA parameter to said selected LUN map to locate said at least one physical LUN stored in said selected LUN map.
6. (Original) The network of claim 5, wherein said LUN mapper issues said received read/write storage request to at least one storage device corresponding to said at least one physical LUN, wherein said at least one storage device is located in said plurality of storage devices.
7. (Original) The network of claim 5, wherein said selected LUN map comprises a two-dimensional array of physical LUN data, wherein a first axis of said LUN map is indexed by target LUN information and a second axis of said LUN map is indexed by target HBA information.
8. (Original) A method for allocating storage in a storage area network, comprising the steps of:
 - receiving a read/write storage request from a host computer;
 - ~~receiving~~ extracting a host id parameter, a target LUN parameter and a target host bus adapter (HBA) parameter from the read/write storage request;
 - ~~determining a physical LUN from the resolved read/write storage request based upon the host id parameter, the target LUN parameter and the target HBA adapter;~~ and
 - issuing a read/write storage request to a storage device in a storage area network, wherein the storage device corresponds to the determined physical LUN.
9. (Canceled)
10. (Original) The method of claim ~~9~~ 8, further comprising the step of:
 - storing at least one LUN map.
11. (Original) The method of claim 10, wherein said determining step comprises the steps of:

selecting one of said stored at least one LUN map corresponding to said host id parameter; and

applying said extracted parameters of target LUN and target HBA to said selected LUN map to determine the physical LUN.

12. (Original) The method of claim 11, wherein said selected LUN map comprises a two-dimensional array of physical LUN data, where said applying step comprises the steps of:

applying said extracted target LUN parameter to a first axis of said selected LUN map;

applying said extracted target HBA parameter to a second axis of said selected LUN map; and

locating the physical LUN in said selected LUN map at the intersection of said applied extracted target LUN and said applied extracted target HBA parameters.

13. (Original) A system for allocating storage resources in a storage area network, comprising:

means for receiving a read/write storage request from a host computer;

means for ~~resolving~~ extracting a host id parameter, a target LUN parameter and a target host bus adapter (HBA) parameter from the read/write storage request;

means for determining a physical LUN from the ~~resolved read/write storage request~~ host id parameter, the target LUN parameter and the target HBA parameter;
and

means for issuing a read/write storage request to a storage device in a storage area network, wherein the storage device corresponds to the determined physical LUN.

14. (Canceled)

15. (Original) The system of claim 14, further comprising:

means for storing at least one LUN map.

16. (Original) The system of claim 15, wherein said determining means comprises:
means for selecting one of said stored at least one LUN map corresponding to said host id parameter; and
means for applying said extracted parameters of target LUN and target HBA to said selected LUN map to determine the physical LUN.
17. (Original) The system of claim 16, wherein said selected LUN map comprises a two-dimensional array of physical LUN data, where said applying means comprises:
means for applying said extracted target LUN parameter to a first axis of said selected LUN map;
means for applying said extracted target HBA parameter to a second axis of said selected LUN map; and
means for locating the physical LUN in said selected LUN map at the intersection of said applied extracted target LUN and said applied extracted target HBA parameters.

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